DELAWARE INVASIVE SPECIES TRACKING SYSTEM

USERS GUIDE:
Site Navigation and the Data Entry

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Users Manual

The homepage of the Delaware Invasive Species Tracking System (DISTS) (**http://www.lsc.usgs.gov/gis/dists/index.htm**) has two navigational links. The first is a Data & Maps link, which allows the user to query the database or the maps for information. The second link is for observers to log in and report an observation of an invasive species.

DATA & MAPS

The Data & Maps link allows a user to query the database and map for information regarding invasive species. The database section has general information on invasive species of interest as well information on invasive species that have been found in the state of Delaware. The Map section allows the user view all locations within Delaware that a selected invasive species has been found. It is important to note that only information that has been approved by the administrator will be viewable to the public. Once an observation record is entered into the database, it must be reviewed by the administrator. When it is approved, it will become viewable. Below is a more in-depth look at the Database and Map links.

Querying the DATABASE – Allows the user to query the database and view results in a table form. The user can query information by seven different topics:

- **Species Characteristics –**
    - View All Species – Provides a listing of all the invasive species that the Delaware Invasive Species Council (DISC) is concerned with. Clicking on the Scientific Name provides the detailed information regarding that invasive species
    - Search by Origin – Allows the user to search according to whether the invasive species' origin is Alien or Adventive. After selecting an origin, press "Search" to view all of the invasive species with that particular

origin. Clicking on the Scientific Name provides the detailed information regarding that invasive species.

- Search by Physiographic Province – Allows the user to search according to whether the invasive species' physiographic province is Piedmont or Coastal Plain. After selecting a physiographic province, press "Search" to view all of the invasive species with that particular physiographic province. Clicking on the Scientific Name provides the detailed information regarding that invasive species.
- Search by Growth Form – Allows the user to search according to the invasive species' growth form. After selecting a growth form, press "Search" to view all of the invasive species with that particular growth form. Clicking on the Scientific Name provides the detailed information regarding that invasive species.
- Search by Wetland Indicator – Allows the user to search according to the invasive species' wetland indicator. After selecting a wetland indicator, press "Search" to view all of the invasive species with that particular wetland indicator. Clicking on the Scientific Name provides the detailed information regarding that invasive species.
- Search by Community – Allows the user to search according to the invasive species' community. After selecting a community, press "Search" to view all of the invasive species that exist in that particular community. Clicking on the Scientific Name provides the detailed information regarding that invasive species.

- **Observations of Invasive Species –**
  - View all Observations – Allows the viewer to view all records that have been entered into the database AND that have made viewable to the public. Once a record is entered, it is not made public until being reviewed by the administrator. To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.
  - Search by Found/Not Found – Allows the viewer to search by whether a species was or was not found. If a species was believed to have been located in a certain location but was not actually found, that data should be entered into the database as well. Select which records you wish to view (Found, Not Found, All) and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.
  - Search by Date – Allows the viewer to search for observations on, before, or after a specified date. The date field defaults to the current date. Select a date and criteria and then click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.

- Search by Community – Allows the viewer to search for species that were observed in a specified community. Select the community that you wish to view records for and then click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.
- Search by Area of Infestation – Allows the viewer to search for observations that had a specified area of infestation. Choose an area of infestation and then click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.
- Search by Species – Allows the viewer to search for observations on a particular species. Select ***either*** the scientific name or the common name and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.

- **Properties –**
  - View All Properties – Lists all of the current properties. Click on the property ID to view the detailed information on that property.
  - Search by Property Name – Allows the user to view observation records according to a particular property. Select the property from the drop-down menu and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.
  - Search by Ownership – Allows the user to view observation records according to whether the property is privately or publicly owned. Select the ownership type from the drop-down menu and click "Search". A listing of the properties will be displayed. To view the detail information of that property, click the Property ID. (Only information that has been approved as public will be shown after clicking the Property ID.) To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number.

- **Landowners –**
  - View all Landowners – Lists all of the current landowners. Only landowners who have given permission to have their information made public will be displayed.
  - Search by Landowner Name – Allows the user to view observation records that were found on the land of a particular landowner. Select the landowner from the drop-down menu and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking

on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.

- **Observers –**
  - View all observers – Lists all of the current observers. To view the detail information on an observer, click on the observer name.
  - Search by Observer Name – Allows the user to search for observation records that have been found by a specific observer. Select the name of the observer from the drop-down menu and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.
  - Search by Observer Affiliation – Allows the user to search for observation records that have been found by people of a certain affiliation. Select the affiliation from the drop-down menu and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.

- **Management Actions –**
  - View all Treatments – Lists all of the observations that had treatments performed on the invasive species. To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.
  - Search by Treatment Type – Allows the user to search for observation records that have had a treatment performed. Select the treatment type from the drop-down menu and click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.
  - Search by Treatment Date – Allows the viewer to search for observations where a treatment was performed on, before, or after a specified date. The date field defaults to the current date. Select a date and criteria and then click "Search". To view the full detail of the observation, click the "Detail" link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.

- **Other Searches –**

- Search by Repository – Allows the user to search for records where the species was sent to a repository. Select repository from the drop-down menu and click “Search”. To view the full detail of the observation, click the “Detail” link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.
- Search by Project Name – Allows the user to search for observations that are related to a particular project. Select project name from the drop-down menu and click “Search”. To view the full detail of the observation, click the “Detail” link for that specific record. The locational information for that observation can be found by clicking on the Point ID number. Only information that has been reviewed and approved by the administrator will be viewable.

Querying the MAPS – Allows the user to query the database and view results in map form.

After clicking on the map button, a page will be displayed containing a drop-down menu of all of the invasive species that have been observed. To view the locations on a map of where the invasive species was found, select the scientific name of the species and then press “Search”. A map of the state of Delaware will be displayed. A red dot will indicate where the specified species was found. There are various zooming options, which allow for zooming in or out, and panning. To perform on of those functions, select the appropriate radio button, and then click on the map. The location that is clicked will become the center point of the redrawn map. To get a more detailed map of where the species was found, zoom in. To view a map showing all locations that a species was found, zoom out. Panning allows you to re-center the current map. The select a point radio button is only used when entering a species observation on the online form.

There are also different layers on the map that can be turned on or off. By default, the roads, streams, basins, and towns layers are turn on while the Delaware Invasive Species Council (DISC) grid and the USGS quadrats is turned off. See the legend beside the map to identify each of these layers. The roads and streams layers will only be displayed on the maps that are zoomed-in. To turn any of these layers on or off, check or uncheck the appropriate box under the layers section and press “Redraw”. Only the layers that have been selected will be shown.

LOGIN

In order to add an observation of an invasive species to the database, the observer must first login. Clicking the login link takes the user to the login screen. An observer ID and password is required before any information can be entered into the database. The observer ID and password is assigned to each observer by the DISTS administrator and the Delaware Natural Heritage Program. From the login screen, type in the ID and password that has been assigned, and then click “Login”. If an incorrect user name or password is entered, the page will be refreshed and again ask for the correct user name and password. Otherwise, the page will redirect to a page where the observer can browse or enter data, and can query the maps. A message at the top of the page will indicate that the user is now logged in. To begin entering data, click the “Enter Data” button. The administration link is for administrators only. You will NOT have access to the administrative pages with your assigned login. To enter data, click the “Enter Data” button. You will be taken to the Data Entry Homepage.

DATA ENTRY

In order to enter data into the database using the online form, the observer must log in to the system. All of the data entry pages are password protected and cannot be accessed until a user has successfully logged in using their assigned username and password. The observer will be assigned a username and password by the DISTS administrator. If any user tries to access any of the data entry pages without first logging in, they will be redirected to the login page.

The first page of the Data Entry section is an overview page. It provides basic information regarding the form and its purpose. Please read the information carefully. There are six sections during the data entry process: Location Information, Survey Information, Species Information, Property Information, Landowner Information, and Management Information. After entering data, the user will be able to verify the information before actually submitting it into the database. To begin entering data, click “Next”.

Locational Information

The first form is the location information. Enter the latitude and longitude (Delaware State Plain Coordinates) of where the invasive species was into the appropriate boxes. If the latitude and longitude is not known, or if a map is needed, select the link “Select a Point from the Map”. The page will redirect to the map of Delaware. To zoom in, make sure the “Zoom In” radio button is selected. Click on that map in the area to zoom in to. Once the area of where the invasive species was found is located, select the “Select a Point” radio button. Click on the area of the map where the species was found. The page will redirect back to the Location Form and will enter the longitude and latitude of the point that was selected. Continue with the Location Form by selecting either Yes or No for the Differentially Corrected and Quantitative Survey questions. The survey plot and direction fields are optional, although recommended if the information is available. When finished entering the location data, click next. If any required information was not given, an error message will be displayed. That information will have to be provided before continuing. Otherwise, the Survey Form will be shown.

Survey Form

The Survey form lists information about the survey being conducted. The name of the observer will automatically be listed. The first time you enter an observation, it is asked that the observer information be updated.

> *To update the observer information, click the button entitled "Update Surveyor Information" at the top. The page listing the current information for the observer will be displayed. Make any corrections necessary. Note that the Name and ID (both needed to login) CANNOT be changed. If the Affiliation is not listed, click on the Add Affiliation button, and follow directions to enter the affiliation data. Enter the name of the affiliation and the affiliation ID in the appropriate boxes. Press "Enter". A page detailing the affiliation information entered will be displayed. Return back to the surveyor information page by selecting the link "Return to the Invasive Form". When finished editing the surveyor information, click "Save" The new surveyor information will be displayed. Select the "Return to the Invasive Form" button.*

By default, the date will be set to the current date. Select the date on which the study was performed. Select the appropriate title of the project being conducted. If the project is not listed, add the project to the database.

> To add a new project, click the "Add Project" Button. Add the Title of the Project and the Project ID. When finished, press "Save". The information you entered will be displayed. Return to the Survey Form by clicking the "Return to the Invasive Form" button. The project entered will now be in the drop-down box.

When finished entering the survey data, click next. If any required information was not given, an error message will be displayed. That information will have to be provided before continuing. Otherwise, the Species Form will be shown.

<u>Species Information Form</u>

The Species Information Form is for entering information regarding the invasive species that was found. Before entering any data, make sure the repository that the species is at (is the species was collected) is provided in the drop-down menu. If not, the repository will have to be added ***before*** filling out information on this form.

> To add a new repository, click the "Add Repository" Button. Add the name of the repository and the repository ID. When finished, press "Save". The information you entered will be displayed. Return to the Survey Form by clicking the "Return to the Invasive Form" button. The repository entered will now be in the drop-down box.

If the repository is already in the drop-down list, begin by selecting either the scientific name or the common name. Selecting one will automatically select the other. Select either Yes or No to whether the species was found and if it was a confident identification (optional). Continue by selecting the infested area, number of individuals found (for animals) and the percent cover (for plants). There can be up to five communities chosen for the species (at least one is required). If needed, select the repository and enter any necessary comments. When finished entering the survey data, click next. If any required information was not given, an error message will be displayed. That information will have to be provided before continuing. Otherwise, the Property Form will be shown.

<u>Property Information</u>

Select the appropriate property at which the species was found from the drop-down list. If the property is not listed, the property will need to be added to the database.

> To enter a new property, click the "Add new property information" button. The property information form will be displayed. All information on this form is required. Enter the name and a brief description of the property. Select either yes or no to whether the property is publicly

owned. When finished, click “Save”. A review of the information entered will be displayed. To return to the property information form, press “Return to the Invasive Species Form”. The property that was just entered should now be listed in the drop-down list.

After selecting the name of the property from the drop-down list, click next. The Landowner Information form will be displayed.

Landowner Information

Select the appropriate landowner of the property at which the species was found from the drop-down list. If the landowner is not listed, the landowner will need to be added to the database.

To enter a new landowner, click the “Add new landowner information” button. The landowner information form will be displayed. The name of the landowner is required. Other information is optional, although recommended if it is known. Enter the contact name, the address, and phone number of the landowner. When finished, click “Save”. A review of the information entered will be displayed. To return to the landowner information form, press “Return to the Invasive Species Form”. The landowner that was just entered should now be listed in the drop-down list.

After selecting the name of the landowner from the drop-down list, click next. The Management Information form will be displayed.

Management Information

All information on this form is optional. The form is used to track the treatments on the invasive form. If none of this section applies, then click next. Otherwise, enter the type of treatment that was used, and the area that it was used on. Select the date when the treatment was performed. By default, the date field is set to the current date. Enter any results in the area provided. When finished, click next to proceed to the data review section.

Data Entry Review

This form provides a review of the information that was entered using the online form. At this point, the data has NOT been entered into the database. Review through the information carefully. If there are any errors, press the back button on the browser and correct any information that is needed. After all information has been verified as correct, it can now be entered into the database. Press submit. A message indicating that the data has been entered into the database will be shown.

Once the submit button has been pressed the data will be entered into database. It is important to note again that the data entered will NOT be made immediately viewable to the public once it is entered. The administrator must first review the information. If the landowner has not given permission for observations made on their land to be made public, the observation will not show up on the webpage. This review process will be performed by the DISTS administrator. Once the administrator has declared the observation record viewable to the public, it will show up on the webpages.

To enter another observation record, click “Enter another report”. The Location Information screen will be displayed. Otherwise, to return to the DISTS homepage, select the “Home” button.

SITE NAVIGATION

Throughout the DISTS website, there is a consistent set of navigational buttons to easily navigate through the website. The main set of navigational links is on the left side of the page. These links provide access to each of the main sections of the website. The Home link returns the user to the DISTS homepage. The Database link sends the user to the database browse page, while the Map link allow the viewer to see a map of where a particular invasive species has been found. The Field Form, Invasive Species, and About links provide additional resources and information to the user.

Another set of navigational links appears on the database and mapping pages. These buttons are at the top of the page, and provide three options: browse data, enter data, and edit data/administration. The “Browse Data” button returns the user to the main browsing page, where it is possible to query the observation information on a wide range of topics. The “Enter Data” button is for entering an invasive species observation into the database. You must be a registered user to enter information. If you have already logged in, this button will take you to the data entry main page. Otherwise, the login screen will appear. The “Edit Data” and “Administration” buttons are for administrators only. The log in information for an observer will not work in the administrators’ section. The two logins are not related.

For each of the navigational items above, there is an easy way to immediately tell which section of the webpage you are currently in. A navigational button that has yellow writing signifies that you are currently located in that particular section. All other buttons will contain white lettering.